OIPE

#3

RAW SEQUENCE LISTING

DATE: 12/20/2001

PATENT APPLICATION: US/09/741,106

TIME: 11:30:48

Input Set : N:\Crf3\RULE60\09741106.txt Output Set: N:\CRF3\12202001\I741106.raw

SEQUENCE LISTING

```
(1) GENERAL INFORMATION:
             (i) APPLICANT: Innis, Michael
      6
                            Creasey, Abla
      7
            (ii) TITLE OF INVENTION: Chimeric Proteins
      9
                                                           ENTERED
           (iii) NUMBER OF SEQUENCES: 37
     11
            (iv) CORRESPONDENCE ADDRESS:
     13
                   (A) ADDRESSEE: Chiron Corporation
     14
                   (B) STREET: 4560 Horton St.
     15
                   (C) CITY: Emeryville
     16
     17
                   (D) STATE: CA
                  (E) COUNTRY: USA
     18
                  (F) ZIP: 94608
     19
             (V) COMPUTER READABLE FORM:
     21
                  (A) MEDIUM TYPE: Floppy disk
     22
                   (B) COMPUTER: IBM PC compatible
     23
                   (C) OPERATING SYSTEM: PC-DOS/MS-DOS
     24
                   (D) SOFTWARE: PatentIn Release #1.0, Version #1.30B
     25
            (vi) CURRENT APPLICATION DATA:
     27
                   (A) APPLICATION NUMBER: US/09/741,106
C--> 28
                   (B) FILING DATE: 12-Dec-2000
C--> 29
                   (C) CLASSIFICATION:
     30
           (vii) PRIOR APPLICATION DATA:
     31
                   (A) APPLICATION NUMBER: 08/286,521
     32
                   (B) FILING DATE: 1994-08-05
     33
          (viii) ATTORNEY/AGENT INFORMATION:
     35
                   (A) NAME: Savereide, Paul B.
     36
                   (B) REGISTRATION NUMBER: 36,914
     37
                   (C) REFERENCE/DOCKET NUMBER: 0990.001
     38
            (ix) TELECOMMUNICATION INFORMATION:
     40
                   (A) TELEPHONE: 510-601-2585
     41
                   (B) TELEFAX: 510-655-3542
     42
        (2) INFORMATION FOR SEQ ID NO: 1:
     45
              (i) SEQUENCE CHARACTERISTICS:
     47
                   (A) LENGTH: 51 amino acids
     48
                   (B) TYPE: amino acid
     49
                   (C) STRANDEDNESS: single
     50
                   (D) TOPOLOGY: linear
     51
            (ii) MOLECULE TYPE: peptide
     53
            (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
     58
             Cys Ala Phe Lys Ala Asp Asp Gly Pro Cys Lys Ala Ile Met Lys Arg
     60
                                                   10
     61
             Phe Phe Phe Asn Ile Phe Thr Arg Gln Cys Glu Glu Phe Ile Tyr Gly
     63
                                               25
     64
             Gly Cys Glu Gly Asn Gln Asn Arg Phe Glu Ser Leu Glu Glu Cys Lys
     66
                      35
                                          40
                                                                45
     67
             Lys Met Cys
     69
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/741,106

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Input Set : N:\Crf3\RULE60\09741106.txt
Output Set: N:\CRF3\12202001\I741106.raw

```
50
70
72 (2) INFORMATION FOR SEQ ID NO: 2:
        (i) SEQUENCE CHARACTERISTICS:
74
75
             (A) LENGTH: 51 amino acids
             (B) TYPE: amino acid
76
             (C) STRANDEDNESS: single
77
             (D) TOPOLOGY: linear
78
       (ii) MOLECULE TYPE: peptide
80
       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
85
        Cys Leu Leu Pro Leu Asp Tyr Gly Pro Cys Arg Ala Leu Leu Leu Arg
87
                                              1.0
88
        Tyr Tyr Tyr Asp Arg Tyr Thr Gln Ser Cys Arg Gln Phe Leu Tyr Gly
90
                                         25
                    20
91
        Gly Cys Glu Gly Asn Ala Asn Asn Phe Tyr Thr Trp Glu Ala Cys Asp
93
                                     40
94
96
        Asp Ala Cys
            50
97
99 (2) INFORMATION FOR SEQ ID NO: 3:
         (i) SEQUENCE CHARACTERISTICS:
101
              (A) LENGTH: 51 amino acids
102
              (B) TYPE: amino acid
103
              (C) STRANDEDNESS: single
104
              (D) TOPOLOGY: linear
105
        (ii) MOLECULE TYPE: peptide
107
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
112
         Cys Phe Leu Glu Glu Asp Pro Gly Ile Cys Arg Gly Tyr Ile Thr Arg
114
                                               10
115
         Tyr Phe Tyr Asn Asn Gln Thr Lys Gln Cys Glu Arg Phe Lys Tyr Gly
117
                                           25
118
         Gly Cys Leu Gly Asn Met Asn Asn Phe Glu Thr Leu Glu Glu Cys Lys
120
                                      40
121
                 35
         Asn Ile Cys
123
             50
124
126 (2) INFORMATION FOR SEQ ID NO: 4:
         (i) SEQUENCE CHARACTERISTICS:
128
              (A) LENGTH: 54 amino acids
129
              (B) TYPE: amino acid
130
              (C) STRANDEDNESS: single
131
              (D) TOPOLOGY: linear
132
        (ii) MOLECULE TYPE: peptide
134
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
139
         Cys Arg Leu Gln Val Ser Val Asp Asp Gln Cys Glu Gly Ser Thr Glu
141
                                               10
142
         Lys Tyr Phe Phe Asn Leu Ser Ser Met Thr Cys Glu Lys Phe Phe Ser
144
                                           25
145
         Gly Gly Cys His Arg Asn Arg Ile Glu Asn Arg Phe Pro Asp Glu Ala
147
                                       40
                  35
148
150
         Thr Cys Met Gly Phe Cys
             50
151
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/741,106

DATE: 12/20/2001
TIME: 11:30:48

Input Set : N:\Crf3\RULE60\09741106.txt
Output Set: N:\CRF3\12202001\I741106.raw

```
153 (2) INFORMATION FOR SEQ ID NO: 5:
         (i) SEQUENCE CHARACTERISTICS:
155
              (A) LENGTH: 51 amino acids
156
              (B) TYPE: amino acid
157
              (C) STRANDEDNESS: single
158
              (D) TOPOLOGY: linear
159
        (ii) MOLECULE TYPE: peptide
161
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
166
         Cys Leu Thr Pro Ala Asp Arg Gly Leu Cys Arg Ala Asn Glu Asn Arg
168
                                              10
169
         Phe Tyr Tyr Asn Ser Val Ile Gly Lys Cys Arg Pro Phe Lys Tyr Ser
171
                                          25
172
         Gly Cys Gly Gly Asn Glu Asn Asn Phe Thr Ser Lys Gln Glu Cys Leu
174
175
                 35
         Arq Ala Cys
177
             50
178
180 (2) INFORMATION FOR SEQ ID NO: 6:
         (i) SEQUENCE CHARACTERISTICS:
182
              (A) LENGTH: 51 amino acids
183
              (B) TYPE: amino acid
184
              (C) STRANDEDNESS: single
185
              (D) TOPOLOGY: linear
186
        (ii) MOLECULE TYPE: peptide
188
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
193
         Cys Tyr Ser Pro Lys Asp Glu Gly Leu Cys Ser Ala Asn Val Thr Arg
195
                                               10
196
         Tyr Tyr Phe Asn Pro Arg Tyr Arg Thr Cys Asp Ala Phe Thr Tyr Thr
198
                                          25
199
         Gly Cys Gly Gly Asn Asp Asn Asn Phe Val Ser Arg Glu Asp Cys Lys
201
                                                           45
                                      40
                 35
202
         Arg Ala Cys
204
             50
205
207 (2) INFORMATION FOR SEQ ID NO: 7:
         (i) SEQUENCE CHARACTERISTICS:
209
               (A) LENGTH: 37 amino acids
210
               (B) TYPE: amino acid
211
               (C) STRANDEDNESS: single
212
               (D) TOPOLOGY: linear
213
         (ii) MOLECULE TYPE: peptide
215
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
220
         Lys Lys Gly Phe Ile Gln Arg Ile Ser Lys Gly Gly Leu Ile Lys Thr
222
                                                                    15
                                               10
223
         Lys Arg Lys Arg Lys Gln Arg Val Lys Ile Ala Tyr Glu Glu Ile
225
                                           25
                      20
226
         Phe Val Lys Asn Met
228
                  35
229
231 (2) INFORMATION FOR SEQ ID NO: 8:
          (i) SEQUENCE CHARACTERISTICS:
233
               (A) LENGTH: 27 amino acids
234
```

RAW SEQUENCE LISTING

DATE: 12/20/2001 TIME: 11:30:48

PATENT APPLICATION: US/09/741,106

Input Set : N:\Crf3\RULE60\09741106.txt
Output Set: N:\CRF3\12202001\I741106.raw

23	5			(B) TY	PE:	amin	o ac	id									
23	6			(C) ST	RAND:	EDNE	SS:	sing	le								
23	7	(D) TOPOLOGY: linear																
23	9	(ii) MOLECULE TYPE: peptide																
24	4	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:																
24	6		Ala	Lys	Ala	Leu	Lys	Lys	Lys	Lys	Lys	Met	Pro	Lys	Leu	Arg	Phe	Ala
24	7		1 .				5					10					15	
24	9		Ser	Arg	Ile	Arg	Lys	Ile	Arg	Lys	Lys	Gln	Phe					
25	0					20					25							
25	252 (2) INFORMATION FOR SEQ ID NO: 9:																	
25	4	(i) SEQUENCE CHARACTERISTICS:																
25	5	(A) LENGTH: 276 amino acids																
25	6	(B) TYPE: amino acid																
25	7	(C) STRANDEDNESS: single																
25	8			(D) TO	POLO	GY:	line	ar									
26	0	(ii)	MOL	ECULI	E TY	PE:]	pept:	ide									
26	5	•	•						N: S									
26	7		Asp	Ser	Glu	Glu	Asp	Glu	Glu	His	Thr	Ile	Ile	Thr	Asp	Thr	Glu	Leu
26	8		1				5					10					15	
27	0		Pro	Pro	Leu	Lys	Leu	Met	His	Ser	Phe	Cys	Ala	Phe	Lys	Ala	Asp	Asp
27	1					20					25					30		
27	3		Gly	Pro	Cys	Arg	Ala	Ile	Met	Lys	Arg	Phe	Phe	Phe	Asn	Ile	Phe	Thr
27	4				35					40					45			
27	6		Arg	Gln	Cys	Glu	Glu	Phe	Ile	Tyr	Gly	Gly	Cys	Glu	Gly	Asn	Gln	Asn
27	7			50					55					60				
27			Arg	Phe	Glu	Ser	Leu	Glu	Glu	Cys	Lys	Lys	Met	Cys	Thr	Arg	Asp	Asn
28			65					70					75					80
28			Ala	Asn	Arg	Ile		Lys	Thr	Thr	Leu	Gln	Gln	Glu	Lys	Pro	_	Phe
28							85					90					95	
28			Cys	Phe	Leu		Glu	Asp	Pro	.Gly		Cys	Arg	Gly	Tyr		Thr	Arg
28				_		100					105				_	110		
28			Tyr	Phe	_	Asn	Asn	Gln	Thr		Gln	Cys	Glu	Arg		Lys	Tyr	Gly
28				_	115		_		_	120				_	125		_	_
29			Gly		Leu	GLY	Asn	Met	Asn	Asn	Phe	Glu	Thr		Glu	Glu	Cys	Lys
29			_	130	_	~ 1	_	-1	135	_		_,	-1	140	_	_	_	
29				He	Cys	GIu	Asp		Pro	Asn	GTA	Phe		Val	Asp	Asn	тyr	
29			145	a 1	_		. 1 .	150			a	.	155	n	a 1.	a	m1	160
29			'l'nr	GIn	Leu	Asn		vaı	Asn	Asn	Ser		Thr	Pro	GIn	Ser		Lys
29				_	_	_	165	- 1	5 1		a 1	170	-	_	-	_	175	_
300			Val	Pro	ser		Pne	GIU	Phe	Hls	_	Pro	ser	Trp	Cys		Thr	Pro
30				_	_	180		a			185	a 1				190		
30			Ата	Asp	-	СТА	Leu	Cys	Arg		Asn	GLu	Asn	Arg		Tyr	туr	Asn
304			_		195	a 1		a -		200	n)	- _		a	205	a	a 1	a 1
300			ser		тте	GLY	ьys	Cys	Arg	Pro	Pne	ьуs	Tyr		GTA	Cys	GIA	GIY
30				210		•	D 1.	m1	215	T	a 1	a 1	~	220		. 1 -	a	T
309				GLU	Asn	Asn	ьиe		Ser	ьys	GIN	GIU	_	ьeu	arg	ата	cys	-
310			225	a 1	Dl	-1 -	Q1	230	T 1 -	Q	T	03-	235	T	T1 -	T	m1	240
312			ьys	GTĀ	ьиe	тте		arg	Ile	ser	гля		GTÀ	ьeu	тте	гÀг		гàг
313	3						245					250					255	

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/741,106

DATE: 12/20/2001 TIME: 11:30:48

Input Set : N:\Crf3\RULE60\09741106.txt
Output Set: N:\CRF3\12202001\1741106.raw

```
Arg Lys Arg Lys Lys Gln Arg Val Lys Ile Ala Tyr Glu Glu Ile Phe
315
                                          265
                     260
316
         Val Lys Asn Met
318
                 .275
319
321 (2) INFORMATION FOR SEQ ID NO: 10:
         (i) SEQUENCE CHARACTERISTICS:
              (A) LENGTH: 23 amino acids
324
              (B) TYPE: amino acid
325
              (C) STRANDEDNESS: single
326
              (D) TOPOLOGY: linear
327
        (ii) MOLECULE TYPE: peptide
329
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
334
         Lys Thr Lys Arg Lys Arg Lys Gln Arg Val Lys Ile Ala Tyr Glu
336
                                              10
                          5
337
         Glu Ile Phe Val Lys Asn Met
339
                     20
340
342 (2) INFORMATION FOR SEQ ID NO: 11:
         (i) SEQUENCE CHARACTERISTICS:
344
              (A) LENGTH: 23 amino acids
345
              (B) TYPE: amino acid
346
              (C) STRANDEDNESS: single
347
              (D) TOPOLOGY: linear
348
        (ii) MOLECULE TYPE: peptide
350
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:
355
         Lys Lys Lys Lys Met Pro Lys Leu Arg Phe Ala Ser Arg Ile Arg
357
                                               10
358
         Lys Ile Arg Lys Lys Gln Phe
360
                      20
361
363 (2) INFORMATION FOR SEQ ID NO: 12:
         (i) SEQUENCE CHARACTERISTICS:
               (A) LENGTH: 17 amino acids
366
               (B) TYPE: amino acid
367
               (C) STRANDEDNESS: single
368
              (D) TOPOLOGY: linear
369
        (ii) MOLECULE TYPE: peptide
371
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:
376
         Ala Lys Leu Asn Cys Arg Leu Tyr Arg Lys Ala Asn Lys Ser Ser Lys
378
                                               10
379
         1
381
384 (2) INFORMATION FOR SEQ ID NO: 13:
         (i) SEQUENCE CHARACTERISTICS:
386
               (A) LENGTH: 15 amino acids
387
               (B) TYPE: amino acid
388
               (C) STRANDEDNESS: single .
389
               (D) TOPOLOGY: linear
390
         (ii) MOLECULE TYPE: peptide
392
         (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:
         Thr Ser Asp Gln Ile His Phe Phe Phe Ala Lys Leu Asn Cys Arg
399
                                                                    15
                                               10
                          5
400
```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/741,106

DATE: 12/20/2001

TIME: 11:30:49

Input Set : N:\Crf3\RULE60\09741106.txt
Output Set: N:\CRF3\12202001\1741106.raw

L:28 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]

L:29 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]